

AMENDMENTS TO THE CLAIMS:

Please amend the claims as follows, substituting any amended claim(s) for the corresponding pending claim(s):

1. (Currently Amended) ~~For use in a transfer molding process of a type that uses a transfer mold to encapsulate portions of an integrated circuit within a molding compound, a method for using a pre-formed film in said transfer molding process, said~~ A method comprising the steps of:

~~providing a film of compliant material;~~

pre-forming ~~said~~ a film of compliant material to at least approximately conform a shape of ~~said~~ the film to a mold cavity surface of ~~said~~ a transfer mold adapted for use in encapsulating portions of an integrated circuit within a molding compound;

placing ~~said~~ the pre-formed film of compliant material ~~within said transfer mold~~ adjacent to ~~said~~ and suspended below the mold cavity surface of ~~said~~ the transfer mold; and

vacuum holding ~~said~~ the pre-formed film of compliant material against ~~said~~ and suspended below the mold cavity surface of ~~said~~ the transfer mold.

2. (Currently Amended) The method as set forth in Claim 1 wherein ~~said step of~~ pre-forming ~~said~~ the film of compliant material is carried out immediately before ~~said~~ the film is placed ~~within said transfer mold~~ adjacent to the mold cavity surface.

3. (Cancelled).

4. (Currently Amended) The method as set forth in Claim 1 wherein ~~said step of~~ pre-forming ~~said the~~ film of compliant material ~~to at least approximately conform a shape of said film to a mold cavity surface of said transfer mold~~ comprises one of: embossing ~~said the~~ film and stamping ~~said the~~ film.

5. (Currently Amended) The method as set forth in Claim 1 further comprising ~~the steps of:~~
placing ~~said the~~ transfer mold and pre-formed film over an integrated circuit die ~~on an integrated circuit substrate;~~

filling ~~said a region adjacent to a portion of the pre-formed film within the~~ mold cavity of ~~said the~~ transfer mold with liquefied molding compound;

allowing ~~said the~~ molding compound to solidify; and

removing ~~said the~~ transfer mold from ~~said the~~ integrated circuit die ~~and said integrated circuit substrate~~ after ~~said the~~ molding compound has solidified.

6. (Cancelled).

7. (Currently Amended) ~~For use in a transfer molding process of a type that uses a transfer mold to encapsulate portions of an integrated circuit within a molding compound, a method for using a pre-formed film in said transfer molding process, said~~ A method comprising the steps of:

providing a tape made of a film of compliant material;

without separating the tape into a plurality of portions, pre-forming a plurality of portions of said regions along the tape to at least approximately conform a shape of a part of each of said plurality of portions of said tape region to a mold cavity surface of said a transfer mold adapted for use in encapsulating portions of an integrated circuit within a molding compound; and

placing one of said the plurality of portions of said regions of the tape within said transfer mold adjacent to said and suspended below the mold cavity surface of said transfer mold.

8. (Currently Amended) The method as set forth in Claim 7 wherein ~~said step of pre-forming said portion the part of the region of said the tape is carried out immediately before said portion the region of said the tape is placed within said transfer mold~~ adjacent to the mold cavity surface.

9. (Currently Amended) The method as set forth in Claim 7, further comprising:

wherein said portion of said pre-forming another part of each region along the tape is pre-formed to a shape that approximately conforms to a shape of said mold cavity surface of said portions of the transfer mold surrounding the mold cavity, wherein a mold cavity surface for the transfer mold includes a surface of the mold cavity within the transfer mold and a surface of the portions of the transfer mold surrounding the mold cavity.

10. (Currently Amended) The method as set forth in Claim 7 wherein ~~said step of pre-forming said portion of said~~ the part of each region along the tape to at least approximately conform a shape of said portion of said tape to a mold cavity surface of said transfer mold comprises one of: embossing ~~said~~ the portion of ~~said~~ the tape and stamping ~~said~~ the portion of ~~said~~ the tape.

11. (Currently Amended) The method as set forth in Claim 7 further comprising ~~the steps of:~~
placing ~~said~~ the transfer mold and one pre-formed region of the tape over an integrated circuit die ~~on an integrated circuit substrate;~~

filling ~~said~~ a region adjacent to a portion of the pre-formed region of the tape within the mold cavity of ~~said~~ the transfer mold with liquefied molding compound;

allowing ~~said~~ the molding compound to solidify; and

removing ~~said~~ the transfer mold from ~~said~~ the integrated circuit die ~~and said integrated circuit substrate~~ after ~~said~~ the molding compound has solidified.

12. (Currently Amended) ~~For use in a transfer molding process of a type that uses a top half of a transfer mold and a bottom half of a transfer mold to encapsulate portions of an integrated circuit within a molding compound, a method for using a pre-formed film in said transfer molding process,~~
said A method comprising ~~the steps of:~~

providing a first film of compliant material;

pre-forming said the first film of compliant material to at least approximately conform a shape of said the first film to a mold cavity surface of said a top half of said a transfer mold adapted for use in encapsulating portions of an integrated circuit within a molding compound;

placing said the pre-formed first film of compliant material ~~within said top half of said transfer mold~~ adjacent to said and suspended below the mold cavity surface of said the top half of said the transfer mold;

providing a second film of compliant material;

pre-forming said the second film of compliant material to at least approximately conform a shape of said the second film to a mold cavity surface of said a bottom half of said the transfer mold;

placing said the pre-formed second film of compliant material ~~within said bottom half of said transfer mold~~ adjacent to said and supported by the mold cavity surface of said the bottom half of said the transfer mold; and

vacuum holding ~~at least one of said the~~ pre-formed ~~films~~ first film of compliant material against ~~at least one of said and suspended below the~~ mold cavity ~~surfaces~~ surface of said the top transfer mold.

13. (Currently Amended) The method as set forth in Claim 12 wherein ~~said step of~~ pre-forming ~~said the~~ first film of compliant material is carried out immediately before ~~said the~~ first film is placed ~~within said~~ adjacent to the mold cavity surface of the top half of said the transfer mold; and

wherein ~~said step of~~ pre-forming ~~said the~~ second film of compliant material is carried out before ~~said the~~ second film is placed ~~within said~~ adjacent to the mold cavity surface of the bottom half of said the transfer mold.

14. (Cancelled).

15. (Currently Amended) The method as set forth in Claim 12 wherein ~~said step of~~ pre-forming ~~said the~~ first film of compliant material ~~to at least approximately conform a shape of said first film to a mold cavity surface of said top half of said transfer mold~~ comprises one of: embossing ~~said the~~ first film and stamping ~~said the~~ first film; and

wherein ~~said step of~~ pre-forming ~~said the~~ second film of compliant material ~~to at least approximately conform a shape of said second film to a mold cavity surface of said bottom half of said transfer mold~~ comprises one of: embossing ~~said the~~ second film and stamping ~~said the~~ second film.

16. (Currently Amended) The method as set forth in Claim 12 further comprising ~~the steps of:~~

placing ~~said~~ the top half of ~~said~~ the transfer mold and pre-formed first film and ~~said~~ the bottom half of ~~said~~ the transfer mold and pre-formed second film around an integrated circuit die on ~~an integrated circuit substrate~~ to form a mold cavity around ~~said~~ the integrated circuit die ~~on said integrated circuit substrate~~;

filling ~~said~~ a region adjacent to portions of the pre-formed first and second films within the mold cavity of ~~said~~ the transfer mold with liquefied molding compound;

allowing ~~said~~ the molding compound to solidify; and

removing ~~said~~ the transfer mold from ~~said~~ the integrated circuit die ~~and said integrated circuit substrate~~ after ~~said~~ the molding compound has solidified.

Claims 17-29 (Cancelled).

30. (Previously Presented) The method of Claim 1, wherein:

pre-forming the film comprises pre-forming a plurality of portions of the film to at least approximately conform a shape of each of the plurality of portions of the film to the mold cavity surface of the transfer mold; and

placing the pre-formed film within the transfer mold comprises placing one of the plurality of portions of the film within the transfer mold.

31. (Previously Presented) The method of Claim 30, further comprising cutting the pre-formed film to separate at least some of the plurality of portions of the film.

32. (Previously Presented) The method of Claim 7, further comprising cutting the pre-formed tape to separate at least some of the plurality of portions of the tape.

33. (Previously Presented) The method of Claim 7, wherein the film comprises a silicone coated latex saturated paper liner.

34. (Previously Presented) The method of Claim 12, wherein:

pre-forming the first film comprises pre-forming a plurality of portions of the first film to at least approximately conform a shape of each of the plurality of portions of the first film to the mold cavity surface of the top half of the transfer mold;

placing the pre-formed first film within the top half of the transfer mold comprises placing one of the plurality of portions of the first film within the top half of the transfer mold;

pre-forming the second film comprises pre-forming a plurality of portions of the second film to at least approximately conform a shape of each of the plurality of portions of the second film to the mold cavity surface of the bottom half of the transfer mold; and

placing the pre-formed second film within the bottom half of the transfer mold comprises placing one of the plurality of portions of the second film within the bottom half of the transfer mold.

35. (Previously Presented) The method of Claim 34, further comprising:
cutting the pre-formed first film to separate at least some of the plurality of portions of the first film; and
cutting the pre-formed second film to separate at least some of the plurality of portions of the second film.
36. (Previously Presented) The method of Claim 12, wherein:
each of the first and second films comprises a silicone coated latex saturated paper liner; and
pre-forming the first and second films comprises pre-forming the silicone coated latex saturated paper liners while edges of the films are unconstrained.
37. (Previously Presented) The method of Claim 5, wherein:
the vacuum holding causes the pre-formed film of compliant material to adhere to at least part of the mold cavity surface; and
the filling of the mold cavity with the liquefied molding compound causes the pre-formed film of compliant material to conform to the shape of the mold cavity surface.